TO E G F

ARIZONA DEPARTMENT OF WATER RESOURCES

500 North Third Street Phoenix, Arizona 85004

WELL DRILLER REPORT

This report should be prepared by the <u>driller</u> in all detail and filed with the Department within 30 days following completion of the well.

	wing completion of the won.				
1.	Owner Name: RHP				
-•	Address: 14605 E. Hunt Hing	. Florence		7 8	ngnu. 7
	Street	City	Sta		<u> </u>
_	-: O .	•			,
2.	Driller Name: Stewart Brothe				
	Address: Po Box 2067	Milan			7021
	Street	City	Sta		
4	Location: 4 N/S 9 (D/V	<u>v</u> <u>si28</u> 4	_ 55 SE 1/4 SE	NE S	E
٥.	Township Range	V Section 74			-acre
	Tourney Tourney	Section	In-trite -in-	acre 100-	acre
4.	Well Registration No. 55- 556091		(Requi	red)	
			/	,	
5.	Permit No		(If issued	i)	
	D.				
	DE	ESCRIPTION OF	'WELL		
6	Total depth of hole 290		ft.		
	Type of casing PVC and LC	· ~	11.		
	Diameter and length of casing 6 in		⊥⊃ in fr		to
	Method of sealing at reduction points		Та, шп	ОПІ	_10
	Perforated from to		to fro	om	to
			ts per foot	лп	w
12.	If screen was installed: Length 40	ft. Diam	is poi 1001	n Tyne Pyr	1000 det Que 80
13.	Method of construction drilled	Mud Detare		п. туро <u>т ус., с</u>	אני אוסור אביביני איב
		en, bored, jetted, etc)			
14.	Date started April	27			
	Month	Day	Year		
15.	Date completed April	30	1996		
	Month	Day	Year		
16.	Depth to water 160		ft. (If flowing w	ell, so state)	
17	Describe maint from which doubt many		1 1 1	1 1	*** * **
	Describe point from which depth measure	irements were mad	ie, and give sea-ieve	l elevation if a	vailable
	2' above ground		, , , , , , , , , , , , , , , , , , , ,		
1 Q	If flowing well, state method of flow re	1.stion.			
10.	ii nowing wen, state menton of now te	guiauon			
19	Remarks:	Г		,	
1,	Remarks:		DO NOT W	RITE IN THIS SE	PACE
				FICE RECORD	
			75 14 41 N. FE F.	=	
			Registration No. 55-55 File No. D(4-5	56091 9)28Beer DAD	
			Received * · · · · ·		7
DWR	R-55-55-7/95 (Rev.)		THTEPE	D JUN 1 2 _B 1	
		1	Entered 18 M M M M	UN L &RI	112

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

To (feet)	Description of formation material
80	Allevium sandtalavel 1"tod". Pover Sectionests
290	Allevium sand topavel 1"tod". Pover Sadiments Upper Sasin fill, foodby cemented Sand of gravel, Clay Accentage ranges from 20% to 50%.
	(feet)

I hereby certify that this well was drilled by me(or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller Name:	Stere	Art Brothers	Drilling
	2067		
Street	NM	87021	
City	State	Zip	Phone No.
- tolong	DS	- t	
Signature of Dril	ler		Date

m32·4BF

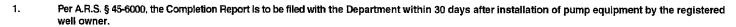
ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

MAIL TO: P. O. BOX 458 - PHOENIX ARIZONA 85000

Phone (602) 417-2470

COMPLETION REPORT

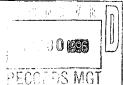
(Pump Installation Report)



- Drawdown of the water level for a non-flowing well should be measured in feet after not less than 4 hours of continuous operations. For a flowing
 well the shut-in pressure should be measured in feet above the land surface or in pounds per square inch at the land surface.
- 3. The static groundwater level should be measured in feet from the land surface immediately prior to the capacity test.

4. The tested pumping cap after continuous opera	pacity of the well in gallons pe ation for at least 4 hours and	minute for a non-flowing for a flowing well be me	well should be deter asuring the natural fl	mined by measuring the ow at the land surface.	discharge of the pump
REGISTRATION NO:	55- 556091		FILE NO:	D(4-9) 28	CAO
LOCATION OF THE V	WELL:				
Township	9 EW	Section Section	1/4	SE 14_0E	4 <u>_SE</u>
Townsinp	Kange	Section	10-ac	re 40-acre	160-acre
EQUIPMENT INSTAL	LED:				
Kind of pump Stainles Turbine, Sul					
H.P. Rating of Motor	/ \/\(\)Pumj	oing Capacity /	gpm	Date Pump Installed_	5-16-96
WELL TEST:					
Test pumping capacityGa)() llons per minute	Date V	Well Tested	5-16-96	
Method of Discharge Measu	rement 5.62	Weir, orifice,	het 8 current meter, etc.	Stopwate	ch
Static Groundwater Level_	140.15		_ft. Drawdown	1.3	ft.
Total Pumping Lift			_ft. Drawdown		lbs
				(Flowing Well)	
I HEREBY CERTIFY that	the above statements are	true to the best of my	knowledge and be	lief.	
Print Well Owner's Name	BHP Copper Florence Project	Address	City	State	Zip 3/26/99
Signature of Well Owner	4605 East Hunt High Florence, AZ 8520	Way Phone Nun			Date
DWR 55-56 (Rev 6/98)	868-5090 (J.	ag, Ser	nor Sev	logist 7	Mailer 1 3/26/99
		ANSW	ERED MAR S	1 1000	

2003 E



ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street Phoenix, Arizona 85004-3903

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-556091

AUTHORIZED DRILLER:

STEWART BROTHERS DRILLING CO.

LICENSE NO: 314

NOTICE OF INTENTION TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

CONSULTANT:

BROWN & CALDWELL

WELL OWNER:

BHP

állic a

The well(s) is/are to be located in the:

SE 1/4 of the SW 1/4 of the NW 1/4 Section 28 Township 4 SOUTH Range 9 EAST

No. of wells in this project: 1

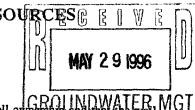
THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 1ST DAY OF APRIL, 1997.

CHIEF, GROUNDWATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING



OPERATIONS DIVISION 15 South 15th Avenue Phoenix, Arizona 85007 (602) 542-1581



NOTE: A.R.S.§45-593.C. requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within thirty (30) days after changes take place. Therefore, this form may be completed in full by either the previous or new owner.

SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP, <u>CHANGES IN ADDRESS</u>, OR CHANGE IN WELL DATA SUCH AS PUMP CAPACITY, CORRECTION OF LEGAL DESCRIPTION, CHANGE OF WELL DRILLER AND AMENDING INFORMATION PREVIOUSLY FILED.

CHANGE O	F WELL INFO	RMATION				
I/We request	the following we	56091 Il information be cha ou 28, township	nged: Well	loca hoa :		
				ENTER	ED JUN 1 0 19	96
		nature of Current W		BHP	Blue	
		, state that				
1/4_ 10 acre 40	1/4 0 acre 160 acr	_14; Sectione	Tc	wnship	Range	
Well Registra	ation No. 55			File No		(If known)
PRINT Previ	ious Owner's Nar	me		PRINT New	Owner's Name	
Mailing Addr	ress			Mailing Addre	SS	
City	State	Zip		City	State	Zip
Telephone				Telephone		
Dated		Signature Pr	evious/New ()wner		

Operations Division, 500 North Third Street Phoenix, Arizona 85004 Telephone (602) 417-2470

45.00

Well Registration No. 55	File No
Original Well Driller	New Well Driller
Mailing Address	Mailing Address
the same and the s	
ADWR License Number	ADWR License Number
	ADWR License Number R.O.C. License Number
ADWR License Number R.O.C. License Number	·
R.O.C. License Number	·

15 SOUTH 15TH AVENUE

Operations Division PHOENIX, ARIZONA 85007

FILING	FEE	\$10.00	

NOTICE OF INTENTION TO DRILL MONITOR/PIEZOMETER WELI

	ention is 45-596, Arizona Revised St ention to Drill shall be filed with the			·			
1.	WELL LOCATION:	7. Consulting Firm: Brown & Caldwell	10.	Const GROUNDWATER MGT			
	4_ N(S) _9 (E)w _ 28	Contact Person: M. Glotfelty		April 17 1996 Month Day Year			
	Township Range Section		11.	Period well will remain in			
	SE 1/4 SW 1/4 NW 1/4 10 ACRE 40 ACRE 160 ACRE	8. Purpose of well drilled pursuant to this notice		use 10 Months Years			
2.	Position location of the well on the land:		12.	For monitoring wells, is pump equipment to be installed?			
	Latitude <u>33</u> 0 <u>3</u> 16 "	Piezometer		YesX No			
	Longitude <u>111</u> 0 <u>26</u> ' <u>05</u> "	9. If for deepening or modifying, Well Registration Number		(a) If yes, design pump capacity 10 gpm			
	County: Pinal	55		(b) What use will be made of the water sampling only			
4.	Owner of the land of wellsite:		13.	Drilling firm:			
	Name 14605 E. Hunt Highway Address	DO NOT WRITE IN THIS SPACE OFFICE RECORD		Stewart Bros. Drilling Co. Name 306 Airport Road P. O. Box 2067			
	Florence, AZ 85232 City State Zip	File No. D(4-9) 28 DAD		Address Milan NM 87021			
5.	· ·	Filed 4/2/96 - By La ENTERED MAY 1 1996		City State Zip DWR License No. 314			
	Name	Input By I loov					
	Address	DUPLICATE		A-04 ROC License classification			
	City State Zip	. 1	14.				
6.	Owner of well: BHP	Registration 55- 556091 AMOVINA PINAL		of a septic tank system, sewage disposal area, landfill, hazardous waste facility, storage area of hazardous			
	Name	w/s <u>U8</u> s/B <u>//</u>		material or petroleum storage areas and tanks? Yes NoX_			
	Florence, AZ 85232 City State Zip						
16.	Proposed method of abandonment of well after	er project is completed: in accordance with	ı Al	DWR rule R12-15-816			
1 7 .	Is this well to monitor existing contamination compliance monitor w		•	Please explain: point of			
1.	<u> </u>	GENERAL INSTRUCTIONS WITH \$10.00 FEE to 15 South 15th Avenue, Phoenix, A	47.A	15007			
2. 3. 4.	For specific instructions, limitations and cond Must be signed by land owner or lessee.	ditions, see the reverse side of this form.					

understand the conditions set forth on the reverse side of this form.

I state that Notice is filed in compliance with Section § 45,596 and is complete and correct to the best of my knowledge and belief and that I

be notified and the drilling, deepening, or modification of the well may not proceed.

Typed or Printed Name

3/19/96 Date

18.	If construction plans have been coordinated with Arizona Department of Envi			
÷	If construction plans have been coordinated with Arizona Department of Waterontact?NA	er Resourc	ces, who is	the agency
19.	WELL CONSTRUCTION PLAN			
	a) Drilling method (mud rotary, hollow-stem auger, etc.) Mud Rotary			
	b) Borehole diameters: 14 1/2 inches from 0 feet to 19	feet.	7.	
	9 5/8 inches from 19 feet to 315	feet.		
	c) Casing materials (PVC, steel, hollow-stem auger, etc.)	feet to	19	feet
	material LCS diameter 10 3/4 inches from -1		265	
	material LCS diameter 6 5/8 inches from -2	_feet to _	203	feet
	d) Method of sealing at reductions No reductions			
	e) Annular seal materials (cement, grout, etc.); method of placement (tremier			
	material Cement Grout method tremie from 0	feet to _	245	feet
	material Fine Sand method tremie from 245	feet to _	255	feet
	f) Filter packs (state material):			
	material Colorado Silica Sand from 255	feet to_	315	feet
		feet to		feet
		. 1000 00	·	
	g) Perforations or screen specifications: type: PWC .080-inch slots from 265	C44-	305	£
	Y	_feet to_		feet
	type from	_ feet to_		feet
	h) Method of well development (bail, air lift, surge). Air Lift			
	i) Will surface or conductor casing extend above grade: Yes X No			
20.	Include detailed construction diagram showing expected water depth in feet b vault, if specified.	elow land	surface, ai	nd details of
	CONDITIONS			
I.	Construction and abandonment standards for all wells shall be in accordance R12-15-816.	with A.A.	C. R12-15-8	311 and
II.	Drilling of the well shall be completed within one (1) year after the date of No	tice.		
III.	A Well Driller Report, is required within 30 days of completion of drilling. A C to be filed with the Department within 30 days after installation of pump equi	Completion	n Report, is r monitor w	s required vells.
IV.	Pump equipment may not be installed on a well drilled for piezometer purpose pumped, pumping is limited to the maximum amount required for monitor pumpy exceed 35 gallons per minute and an annual volume of 10 acre feet total.	rposes, <u>b</u> ı	onitor well ut in no cas	is <u>e</u>
V.	A.A.C. Rule R12-15-811.H.2, requires that: "A monitor well shall be identified cover or at the top of the steel casing. Identification information will include			
VT	Special construction standards required pursuant to A.A.C. Rule R12-15-821:			
¥ 1.	opecial construction standards required pursuant w A.A.O. Itale 1012-10-021.			

Note: Submersible pump enclosed in a locked vault to be included per A.A.C. Rule R12-15-811.H.2 2-FOOT STICKUP-1-FOOT STICKUP CEMENT GROUT SEAL 10 3/4-INCH LOW-CARBON STEEL SURFACE CASING (0.250-INCH WALLED) MINIMUM 19 FEET -14 1/2-INCH SURFACE BOREHOLE 6 5/8-INCH LOW-CARBON STEEL CASING (SCHEDULE 40, APPROXIMATE STATIC WATER LEVEL 160 FEET PLAIN END) CEMENT GROUT SEAL 9 5/8-INCH BOREHOLE FINE SAND SEAL (20-40 MESH) 245 FEET-255 FEET CASING CENTRALIZER (80-FOOT INTERVALS) 265 FEET-6 5/8-INCH LOW-CARBON STEEL CROSSOVER SUB (SCHEDULE 40 TO SCHEDULE 80) 6 5/8-INCH SLOTTED PVC CASING (SCHEDULE 80, 0.080-INCH SLOTS) SILICA SAND FILTER PACK (6-9 MESH) 305 FEET -6 5/8-INCH PVC CASING (SCHEDULE 80) PVC WELL CAP 315 FEET -(SCHEDULE 80)

NOTES:

NOT TO SCALE

- 1. PVC = POLYVINYL CHLORIDE
- 2. ALL DIAMETERS ARE O.D.
- DEPTHS ARE PRELIMINARY AND WILL BE BASED ON LOCAL GEOLOGY AND WILL BE DETERMINED BY THE CONSULTANT.

BROWN AND CALDWELL

C_{ubf} MONITOR WELL DESIGN

 \mathbf{BHP}

Florence, Arizona

L:\BHP\3355\MW-003 (1=1) 03-27-96 DanH

500 North Third Street, Phoenix, Arizona 85004 Telephone (602) 417-2470 Fax (602) 417-2422

April 24, 1996



FIFE SYMINGTON
Governor

RITA P. PEARSON Director

BHP 14605 E. Hunt Highway Florence, AZ 85232

RE: Registration No. 55-556090 thru 55-556094 File No. Various

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to Drill a well. This is returned to you as evidence of compliance with A.R.S. §45-596. A drilling card has been mailed to your designated driller. Prior to drilling he must have it in his possession.

Since this well is being drilled as a Monitor well, or for Cathodic Protection, Grounding, Geotechnical or Piezometer purposes, our standard driller report form is also being furnished to the driller. He is required to complete it and return it to the Department within 30 days after the completion of the well. A Completion Report form is being furnished for monitor wells where pump installation is authorized. This must be completed within thirty days of installation as required by A.R.S. §45-600.

A Change of Well Information form is enclosed for your future use. If you deem it necessary to change the location of the proposed well, please notify the Department on the enclosed form. A properly amended Drilling Card will then be issued and must be in possession of the driller before drilling begins. During the drilling of a new well, if it is determined that it must be abandoned, then a Well Abandonment Completion Report must be submitted per R12-15-816.F.

Per A.R.S. §45-593, the person to whom a well is registered shall notify this Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, in order to keep the well registration file current and accurate.

Sincerely,

Dorothy Boggs

Groundwater Permit Specialist

Dorothy Doggs

ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street Phoenix, Arizona 85004-3903

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-556091

AUTHORIZED DRILLER: STEWART BROTHERS DRILLING CO.

LICENSE NO: 314

NOTICE OF INTENTION TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

CONSULTANT:

BROWN & CALDWELL

WELL OWNER:

BHP

The well(s) is/are to be located in the:

Township 4 SOUTH Range 9 EAST SE 1/4 of the SW 1/4 of the NW 1/4 Section 28

No. of wells in this project: 1

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 1ST DAY OF APRIL, 1997.

CHIEF, GROUNDWATER MANAGEMENT SUPPORT

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING



ARIZONA DEPARTMENT OF WATER RESOURCES GROUNDWATER MANAGEMENT SUPPORT SECTION

500 North Third Street Phoenix, Arizona 85004-3903

REISSUE

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILL OPERATIONS

WELL REGISTRATION NO: 55-556091

AUTHORIZED DRILLER:

STEWART BROTHERS DRILLING COMPANY

LICENSE NO: 314

NOTICE OF INTENTION TO DRILL A MONITOR WELL HAS BEEN FILED WITH THE DEPARTMENT BY:

CONSULTANT:

BROWN & CALDWELL

the first of the second of the

WELL OWNER:

BHP

The well(s) is/are to be located in the:

SE 1/4 of the

NE 1/4 of the SE 1/4 Section 28

Township 4 SOUTH

Range 9 EAST

No. of wells in this project:

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE 1ST DAY OF APRIL, 1997.

CHIEF, GROUNDWATER MANAGEMENT SÚPPÓRT

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING

